

CSTAR-VLab-OPG Linkages:

How to advance Collaborative Science, Technology and Applied Research (CSTAR) results through testing and demonstration to “launch list” for National Advanced Weather Information Processing System II (AWIPSII) application/tools upgrades

1. Successful completion of CSTAR grant activities produces proof of scientific concept for advanced capability that meets a NWS requirement
2. NWS Partner on CSTAR activity, often a Science Operations Officer(SOO), takes the lead in transition activities (R2O):
 - a. Securing requirements validation (OSIP successor)
 - b. Demonstrating science proof of concept (normally by peer-reviewed publication of CSTAR results)
 - c. Completion of developmental testing: Including software (S/W) adaptation for use in AWIPS II or Advanced Hydrologic Prediction Service (AHPS) infrastructure
 - d. For S/W: arranging (e.g. through Virtual Lab (V-Lab) to develop/test application code to meet protocols and standards (e.g. for AWIPSII applications)
 - e. S/W code evaluation successful: (e.g. Data Review Group/Systems Engineering Center)
 - f. Preparing and conducting operational testing and evaluation.
 - i. Application, prepared by NWS Partner:
 1. Responds to annual (or more frequent) call for test proposal
 2. Rated successful in OPG competition as meriting testing: based on relevance (requirements, significance of mission impacts if successfully implemented), S&T excellence, effective/efficient approach to OPG testing
 3. Provisional approval for testing priority, pending approval of specific OPG testplan
 - ii. OPG Testplan, prepared by NWS partner; review and approval by OPG manager
 1. Testplan: outlines specific schedule, test/demonstration criteria, testing resources (personnel time, equipment, any travel or remote-access needs, etc.)
 2. Testing period at OPG Scheduled, based on approved final testplan, with any iterations from OPG management
 - iii. Evaluation testing conducted at OPG – with OPG facilitation/partnership
 1. Demonstrate successful attainment of operational readiness criteria, in categories of : objective performance (e.g. accuracy and reliability), subjective performance (do forecasters and any decision support partners find it helpful), workflow/workforce impacts assessment, engineering readiness (e.g. linkages, ongoing evaluation, backup, archiving, any tech refresh)
3. Decision to approve for implementation at Operational Readiness review:
 - a. NWS Partner presents Readiness Criteria Assessment, based on successful testing at OPG
 - b. AWIPSII PM and FMC/PPA leads review/approval (to add to national baseline). Consistent with Program/Project/Activity review/approval procedures [being updated by OST Director]
4. Capability added to operational AWIPSII baseline
 - a. AWIPSII O&M manager oversight

Note: The general approach also applies to RFC/AHPS applications; parallel processes and AHPS PM oversight